July 14, 2005

ADDENDUM No. 5

Question #1:
In reference to 5.3 of Exhibit III, it is understood that the spacecraft will guarantee the mentioned minimal (survival) temperature at the baseplate (i.e. is NOT providing a heater line for TDS internal heating).

Answer to #1:
This is the correct interpretation.

Question #2:
In reference to 4.13.3.6 of Exhibit V, are the requirements relevant to UHF (ELECTRA) and to the X-band channel applicable (i.e., do they transmit and/or receive during the descent? It seems that the answer is yes for ELECTRA?)

Answer to #2:
Both the X-band and UHF transponders will be operating during the Entry, Descent, and Landing phase of the mission. Therefore, it is critical that the Terminal Descent Sensor meets the UHF and X-band radiated susceptibility requirements. The environmental requirements in Exhibit V are preliminary requirements. In the future, more radiated susceptibility requirements may be imposed on the TDS once the EM emissions from the payloads and spacecraft avionics are known.

Question #3:
In reference to 4.12.2.4 of Exhibit IV, we assume the acoustic noise test does not apply to the TDS.

Answer to #3:
The vendor may not be required to perform acoustic noise test at the sensor level. However, after the TDS is integrated with the rest of the spacecraft, a spacecraft system acoustic noise test will be performed. Therefore, the TDS needs to be designed to withstand the vibrations induced by the acoustic noise test.

Question #4:
We would like to receive detailed data regarding the Mars Lander trajectory during the EDL phase including:

- Velocity
- Accelerations
- Jerk (if applicable)
- Height above surface
- Attitude angles
- Attitude angle rates

Answer to #4:

The MSL trajectory during the EDL phase is not finalized at this time because the project team is actively trading a number of entry/descent configurations and parameters. Figure 1 of Exhibit III (Nominal timeline of the spacecraft during the EDL phase) provides a representative profile of the parameters of interest.

Question #5:
Which of the backscattering curves shown in 5.1.5 of Exhibit III would be applicable?

Answer to #5:
Please assume the blue curve (Mars average SC backscatter behavior) in Figure 3 of Exhibit III for this proposal.